

REMARKS

Claims 1-12, 14-38 and 40-54 are pending in the above-identified application. Claims 13 and 39 were previously cancelled.

In the pending Office Action, claims 1-12, 14-38 and 40-54 were rejected.

With this Amendment, claims 1-12, 14-38 and 40-54 were amended and new claim 55 was added. Accordingly, claims 1-12, 14-38 and 40-55 are at issue.

I. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1-12, 14-38 and 40-54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nafeh* (US 5,343,251) in view of *Kanda* (US 5,930,446) in view of *Merriman et al.* (US 2003/0028433). However, with respect to the “first signal” recited in the pending claims, the Examiner stated that “[t]he clarification of the [first] signal being a CM [e.g., a commercial message] would provide a limitation that would overcome the cited references.”

Although the Applicants believe that the previously presented claims are patentable over the cited references of record, to further prosecution, Applicants have amended claims 1-12, 14-38 and 40-54 to replace the term “first signal” with the term “commercial message” as suggested by the Examiner to overcome the cited references. See, 11/01/07 Office Action, at pg. 2. Applicants reserve the right to pursue the original or previously presented claims in a continuation application.

With respect to independent claim 1 as amended and with reference to the exemplary embodiment depicted in Figure 1A, Applicants claim a signal processing device having the following limitations:

a commercial message section detecting means (202) for detecting a commercial message section (202a) from an input signal (200a) including at least the commercial message section and the remaining signal section on a time division basis;

a commercial message extracting means (201) for extracting a commercial message (201a) in the commercial message section from the input signal in accordance with a result of the detection by the commercial message section;

a recording means (205) for recording each signal extracted from the input signal by the commercial message extracting means (201);

an index information extracting means (206) for extracting information from said commercial message section to be used as a user-selectable index (206a) representing said recorded commercial message, the information extracted from said commercial message section and associated with said commercial message being one of a starting image, a cut point image, a starting sound or an ending sound; and

a display means (208) for displaying said index.

Independent claim 27 as amended has similar limitations to those in claim 1.

Applicants teach that the claim 1 signal processing device allows commercial messages to be detected in and extracted from an input signal so that the commercial messages may be separated from the remaining signals (e.g., program segments) in the input signal based on respective characteristic values characterizing each commercial message. See Application, at pgs. 3-4. Applicants further teach that the recording means stores each commercial message in association with its respective characteristic values and the index information extracting means is adapted to extract information from each recorded commercial message (and, in one implementation from the its respective characteristic values) to generate a user-selectable index, such as the starting image, the cut point image, the cut point video image, the starting sound

and/or the ending sound of the respective recorded commercial message or commercial message.

See Application, at pgs. 3-4 & pg. 18 line 19 - pg. 20 line 14; Fig. 8.

As acknowledged by the Examiner, none of the cited references (including *Nafeh, Kanda, and Merriman*) alone or in combination disclose or suggest a signal processing device having each of the limitations of claim 1 (or a signal processing method having each of the limitations of claim 27) pertaining to the “*detecting*” and “*extracting a commercial message section*” that includes a “*commercial message*” from an input signal, recording the detected and extracted commercial message and “*extracting information from the commercial message section to be used as a user-selectable index representing the recorded commercial message*” as taught and claimed by Applicants, where “*the information extracted from said commercial message section and associated with the commercial message*” is “*one of a starting image, a cut point image, a starting sound or an ending sound.*” See, 11/01/07 Office Action, at pg. 2.

Accordingly, for at least the foregoing reasons, Applicants respectfully request that the rejection of claims 1 and 27 be withdrawn.

Claims 2-12, 14-26, and 53 depend directly or indirectly from claim 1 and should be deemed allowable for at least the same reasons as claim 1. Claims 28-38, 40-52, and 54 depend from claim 27 and should be deemed allowable for at least the same reasons as claim 27. Accordingly, Applicants respectfully request that the rejection to the dependent claims 2-12, 14-26, 28-38, and 40-54 be withdrawn.

II. New Claim 55

Applicants respectfully submit new claim 55 for the Examiner's consideration. New claim 55 incorporates the limitations of original claims 1 and 18 to reflect one aspect of Applicants' invention.

In particular, with reference to the exemplary embodiment depicted in Figure 1A, claim 55 is directed to a signal processing device comprising the following elements, among other limitations:

a recording means (205) for recording each signal [e.g., each commercial message] extracted from the input signal (200a) [e.g., a program segment] by the first signal extracting means (201), wherein said recording means (205) includes a characteristic comparing means (204) for comparing the first signal (201a) [e.g., one extracted commercial message] with each signal [e.g., each commercial message] stored in the recording means (205) and, in response to determining that the first signal [e.g., the one commercial message] is the same as another signal [e.g., another commercial message] stored in the recording means, removing from the recording means one of the first signal [e.g., the one commercial message] or the other signal [e.g., the other commercial message]...

Support for this limitation can be found on at least page 26, line 10, through page 27, line 9 of the original Application (or paras [0108]-[0111] of the Application as published).

The Examiner, in rejecting claim 18, asserts that *Nafeh* teaches this limitation and points to column 5, lines 30+ for support of this assertion. Applicants respectfully disagree with the Examiner's assertion.

Nafeh discloses an apparatus 10 for discerning a commercial message from a program message in an input signal 12 based on learned signal patterns associated with different classes of commercial and program messages so that the commercial messages can be eliminated (or attenuated) before being recorded on a VCR or displayed on a TV. *See Nafeh*, Col. 2:38 - Col. 3:57; Col. 5:29 - Col. 6:21; Col. 7:14-46. In particular, *Nafeh* discloses that “[t]he single output of the network [classifier 24 of apparatus 10] is used to make a decision as to whether the broadcast [or input signal 12] is either a commercial or a program, following a detected transition [in the broadcast or input signal 12].” *See Nafeh*, Col. 6:18-21. No where does *Nafeh* teach or suggest a recording means for recording each signal (or commercial message) extracted from an input signal (or program segment), where the recording means includes a characteristic comparing means for comparing the extracted first signal (or the one extracted commercial message) with each signal (or commercial message) previously stored in the recording means as required by new claim 55. Moreover, *Nafeh* fails to teach or suggest that, in response to determining that the first signal (e.g., the one commercial message) is the same as another signal (e.g., another commercial message) stored in the recording means, removing from the recording means one of the first signal (e.g., the one commercial message) or the other signal (e.g., the other commercial message) as required by new claim 55.

Accordingly, Applicants respectfully submit that *Nafeh* (alone or in combination with other cited references of record) fails to teach all the limitations of new claim 55 and, thus, new claim 55 is in condition for allowance.

III. Conclusion

In view of the above amendments and remarks, Applicants submit that claims 1-12, 14-38 and 40-55 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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